VMZ Composite
Composite zinc panels for ventilated cladding and curtain walls.

Specification and installation guide
VMZ Composite

Presentation of the system

Presentation of the system

VMZ Composite is a system made up of two sheets of zinc and a high density mineral-rich core combining the qualities of zinc with the rigidity and flatness of composite. This combination offers unique architectural possibilities for facades on new or renovated buildings.

Advantages

- Flat and exceptionally rigid
- Large dimensions of panels
- Dimensional stability
- Solutions for complex shapes thanks to excellent forming and curving capacity
- The natural matte aspect of QUARTZ-ZINC, ANTHRA-ZINC®, and PIGMENTO®.

Technical data

<table>
<thead>
<tr>
<th>Large dimensions exclusive to zinc</th>
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<tbody>
<tr>
<td><strong>Maximum width</strong></td>
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<tr>
<td><strong>Standard length</strong></td>
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<td><strong>Length on request</strong></td>
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</table>

* 1250 mm on request exclusively in QUARTZ-ZINC® in 0.7 mm thickness.

Characteristics of panels

<table>
<thead>
<tr>
<th>Surface aspects</th>
<th>QUARTZ-ZINC®, ANTHRA-ZINC®, PIGMENTO®</th>
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<tbody>
<tr>
<td><strong>Thickness of zinc</strong></td>
<td>0.5 mm</td>
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<tr>
<td><strong>Inner layer</strong></td>
<td>mineral-rich polyethylene (FR)*</td>
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<tr>
<td><strong>Overall thickness</strong></td>
<td>4 mm</td>
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<td><strong>Moment of inertia</strong></td>
<td>0.39 cm³/m</td>
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<tr>
<td><strong>Density of composite</strong></td>
<td>12 kg/m²</td>
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<tr>
<td><strong>Expansion coefficient</strong></td>
<td>2.2 mm per 100°C</td>
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</tbody>
</table>

* Fire Retardancy

Surface aspects

The 6 different shades offered by VMZINC provide a rich choice of colours for new construction and renovation, for both modern and traditional facades.

Fire resistance

VMZ Composite in QUARTZ-ZINC® and ANTHRA-ZINC® is certified B-s1-d0, according to the European fire resistance standard EN 13501-1.
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Projects

Parish centre (Switzerland) - Architect: Architekten Kollektiv AG, Winterthur - Installer: SC Haller AG, Frauenfeld

Raymond Stone Residence, Toronto (Canada) - Architect: Belzberg Architects

Brown University Granoff Center (USA) - Architect: Diller Scofidio and Renfro - Installer: Karas & Karas Glass Company, Inc.
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Projects

Colindale Hospital (UK)

Matt Haven (USA)

Business school, Melbourne (Australia)

Exhibition center, Shangai (China)
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Preparation of work

Ventilated cladding
VMZ Composite panels are installed on a wall-mounted framework on ventilated facades, providing a sound and lasting solution for buildings. The system can be installed in cassettes or in panels that are riveted or screwed onto the framework.

Curtain walls
This guide does not deal with curtain-wall applications. These will be the subject of a design study with the manufacturer of the curtain-wall system used.

Installer qualifications
The installation company should possess know-how in the field of facades and have experience working with composite panels. It must ensure that its use of the system complies with the conditions and area of use set out in this document.

Storage recommendations
VMZ Composite panels must be stored on their original pallet, on a dry floor, in a properly ventilated covered area. Their outer side is covered with a protective film on delivery to protect the surface aspect during installation. The film must be entirely removed at the latest 90 days after installation.

Ventilation
Ventilation of the underside of the panels must be ensured by an air space that is at least 2 cm thick, situated between the insulation and the VMZ Composite panel or between the brickwork and the panels. The entrance of the air space is ensured by a perforated profile at the base trim and by a divider at the expansion joint.

Layout diagram
Before installation, the installer must prepare a precise layout diagram in order to establish the positioning of the secondary framework components, and a precise quantity estimate for the panels or cassettes.

The design and installation of the aluminium framework must take expansion constraints and local installation regulations into account and, if necessary, the recommendations of the framework manufacturer.
Riveted or screwed-down system

The riveted or screwed-down system is a ventilated cladding system made up of a VMZ Composite panel fixed using rivets or screws to a wall-mounted framework of vertical and horizontal aluminium profiles. The system is fixed with fixing brackets or angle brackets to a supporting structure in concrete or brickwork.
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Riveted or screwed-down system

Area of use

**Supporting structure**
To be installed on flat, vertical brickwork or concrete supports. The aluminium framework is made up of vertical and horizontal profiles fixed to allow expansion.

**Wind resistance**
Wind resistance is defined from criteria specified in the recommendations of the French Avis Technique n° 2/12-1532 VMZ Composite panels riveted or screwed-down.

### Chart 1: Wind resistance of riveted panels (in Pa)

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<th>Width (mm)</th>
<th>Distance between fixed points</th>
<th>1000</th>
<th>1250</th>
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### Chart 2: Wind resistance of screwed down panels (in Pa)

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VMZ Composite

Riveted or screwed-down system

Description of components

- **VMZ Composite panel**
  - Aspects: QUARTZ-ZINC®, ANTHRA-ZINC®, PIGMENTO®
  - Thickness of panels: 4 mm
  - Width of horizontal and vertical joints: 10 mm.
  - The panels must be squared (see p. 35).
  - Dimension of panels with 5 mm squaring on 4 sides:
    - Maximum centre distance, width-wise (including joint): 1000 mm
    - Maximum width of squared panels: 990 mm for panels of 1000 mm
  - Standard length centre distance (including joint):
    - 3000 mm and 4000 mm
  - With standard length of squared panels:
    - 2990 mm for panels of 3000 mm
    - 3990 mm for panels of 4000 mm
  - Maximum centre distance, length-wise (including joint): 6000 mm
  - With maximum length of squared panels: 5990 mm for panels of 6000 mm (on request).

- **Aluminium profiles**
  - The geometry of the profiles, which have a minimum thickness of 2 mm, makes it possible to align horizontal and vertical joints.
  - Maximum deflection of panels must comply with local standards (commonly used value: 1/200th of the span between supports).
  - Alcoa Architectural Products ref. 782 type rail. The profiles are fixed to the supporting structure (masonry) using brackets or fixing brackets.

- **Aluminium clip**
  - The horizontal profiles are fixed on the vertical profiles using 2 mm thick aluminium clips.

- **Rivet**
  - Blind flat head thermolacquered aluminium rivet Ø11 mm (fixed point) or 14 mm (sliding point), body Ø5 mm and stainless steel stem (type SFS AP 11/14-S-5).

- **Self-drilling screw**
  - Stainless steel Ø Head 12 Length 19 mm, assembly capacity 6 mm, drilling capacity 3 mm (type SFS SLA 3/6 S-D12).

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**Components of the system**

- **VMZ Composite panel**
- **Aluminium profiles**
- **Aluminium clip**
- **Rivet**
- **Self-drilling screw**

**Rivet and screw heads may be lacquered:**
- QUARTZ-ZINC® RAL N° 7037
- ANTHRA-ZINC® RAL N° 7021
- PIGMENTO® blue RAL N° 7031
- PIGMENTO® green RAL N° 7003
- PIGMENTO® red RAL N° 8025
- PIGMENTO® brown RAL N° 8028

**Aluminium rivet/Stainless steel Ø 5 - K11 or K14**

**Screw** SLA 3/6 -S-D12- 4.8 x 19
Preparing the substructure

Design and installation of the ductile aluminium framework will be determined in compliance with best practices. Installation of the framework is prepared using marking (laser or tracing line) and must correspond to the architect’s layout.

The framework is made up of vertical aluminium profiles fixed to the substructure (brickwork or concrete) using brackets or fixing brackets enabling the profiles to expand freely.

Spacing of the brackets or fixing brackets is defined with maximum deflection in compliance with local regulations (commonly used value: 1/200th of span). The depth of the brackets or fixing brackets is determined by the thickness of the insulation. A space of 2 cm will be left between the insulation and the composite panels to ensure ventilation.

The maximum centre distance between profiles varies depending on the format of the panels and the exposure of the building to winds. The maximum distance between vertical supports is equal to the width of the panels. Wind resistance of the panels is determined in the chart on page 4.

Continuity of joints is ensured by horizontal aluminium profiles installed between the vertical profiles. Assembly between profiles is carried out using 50 mm x 50 mm aluminium clips that are 2 mm thick. Two Ø 5 mm rivets are used to fix clips to vertical profiles. Fixing on the horizontal profile will include an expansion point on one side using a Ø 5 mm rivet and a Ø 7 mm drilled hole (cf diagram opposite).
VMZ Composite

Riveted or screwed-down system

Installation on main building

Installing panels

It is preferable that panels be pre-drilled at plant. Check that holes are drilled at least 15 mm from the edge of the panel. VMZ Composite panels are fixed to profiles using rivets or screws so as to ensure expansion. Expansion of the panels is done at the same time as that of the aluminium profiles, horizontally, using expansion points on one of the vertical edges as illustrated opposite.

The panels will be applied onto the profiles of the framework and positioned using spacers. Fixing (rivets or screws) is installed as work progresses. The protective film is removed by progressively peeling off and avoiding spills, projections and scratches.
Fixing with rivets

- Making a fixed point
  Drilling diameter is 5.1 mm.

- Making an expansion point
  A special mouthpiece will be used for the central fixing of the expansion rivet. The drilling diameter is 7.1 mm.

  The mouthpiece has a clearance that minimizes tightening under the head of the rivet, thus enabling expansion of the panel.

Fixing with screws

The drilling diameter for fixed points is 4 mm and 7.1 mm for expansion points.

Fixed points

Expansion points
VMZ Composite

Riveted or screwed-down system

Projects
VMZ Composite

Riveted or screwed-down system

Sections

Vertical section

Horizontal section

1. VMZ Composite Panel
2. Secondary vertical aluminium framework rail
3. Bracket or fixing bracket
4. Horizontal aluminium rail
5. Aluminium bracket 50 x 50 mm
6. Rivet or screw
7. Spacer to break thermal continuity
8. Roof parapet coping in VMZ Composite
9. Ventilated base trim in zinc

Min. 20 air space
VMZ Composite

Riveted or screwed-down system

Flashings

Top trim

Roof parapet

Underside - wall junction

Bottom trim

Base trim

Wall - underside junction
VMZ Composite

Riveted or screwed-down system
Flashings

Window surround

Lintel

Support

Jamb

1. VMZ Composite panel
2. Secondary aluminium vertical framework rail
3. Bracket or fixing bracket
4. Aluminium horizontal rail
5. 50 x 50 mm aluminium bracket
6. Rivet or screw
7. Spacer for breaking thermal continuity
8. Corner
9. Support apron
VMZ Composite

Riveted or screwed-down system

Flashings

1. VMZ Composite Panel
2. Secondary aluminium vertical framework rail
3. Bracket or fixing bracket
4. Aluminium horizontal rail
5. 50 x 50 mm aluminium bracket
6. Rivet or screw
7. Spacer for breaking thermal continuity
8. Support apron in zinc
VMZ Composite

Riveted or screwed-down system

Flashings

Corners

Recessed corner

Protruding corner

Side trim and column

Side trim

Column

1 VMZ Composite Panel
2 Secondary aluminium vertical framework rail
3 Bracket or fixing bracket
4 Aluminium horizontal rail
5 50 x 50 mm aluminium bracket
6 Rivet or screw
7 Spacer for breaking thermal continuity
8 VMZ Composite Panel
VMZ Composite

Cassette system

This system uses two types of VMZ Composite folded cassettes that are fixed to a vertical metal framework mounted on a brickwork or full concrete substructure. These cassettes offer an effective cladding system providing modularity and refined elegance for architectural projects.

Two possible configurations:
- Vertical installation of cassettes
- Horizontal installation of cassettes.

The fixing system varies depending on the direction of cassettes:
- with two sliders that slot into place for vertical cassettes, using an installation method known as the “coat-hanger” method
- with fixing rails along the full length of horizontal cassettes.

VMZ Composite Cassette
2 Aluminium framework profiles
3 Brackets or fixing brackets
4 Fixing slider for vertical cassette
5 Fixing rails for horizontal cassettes
VMZ Composite

Cassette system
Description of components

Components (common to both systems)

- **VMZ Composite cassettes**
  Aspects: QUARTZ-ZINC®, ANTHRA-ZINC®, PIGMENTO®
  Thickness of panels: 4 mm
  Width of horizontal and vertical joints: 10 mm or 15 mm.

  **Standard dimension of cassettes excluding joints:**
  Width: Maximum 900 mm (1150 mm for panels of 1250 mm)
  Usual lengths: 3000-4000 mm
  Maximum length: 6000 mm.
  A lifting tool is necessary due to the weight of cassettes.
  (for longer lengths contact us)

- **Aluminium profile**
  Minimum thickness of 2 mm. Maximum deflection of panels must comply with local standards (commonly used value: 1/200th of the span). Alcoa Architectural Products ref. 782 type rail.

Fixing accessories for vertical cassettes

- **Slider**
  Housed in the cage of the vertical framework rail, the slider is made using an extruded aluminium profile. Height = 60 mm.
  (Alcoa Architectural Products ref. 816) A self-incising screw is positioned at the bottom of the slider (delivered pre-assembled with Alcoa slider ref 816).

- **Rivet**
  Used to make the fixed point of the cassette: rivet with aluminium or stainless steel body with 5 mm diameter with stainless steel stem.

Vertical cassette with notch*

* Horizontal cassettes do not require notches.

Aluminium profile

Slider

Rivet

Aluminium rivet/Stainless steel
Ø 5 • K11 or K14
VMZ Composite

Cassette system

Area of use

**Substructure**
To be installed on flat, vertical brickwork or concrete supports for new buildings and renovations. The supporting wall ensures airtightness. The wall-mounted aluminium framework is made up of vertical and horizontal profiles fixed to enable expansion.

**Wind resistance**
Wind resistance is determined for normal wind corresponding to maximum pressure and depression using the charts below.

Ultimate load in normal wind is defined using the following criteria:
- Ruin value divided by 3 or maximum constraints lower than 75 MPa
- Maximum deflection < 1/30th of smallest width of cassette
- Distance between vertical supports:
  - Vertical cassettes = width of cassettes
  - Horizontal cassettes = Cf. chart below.

### Maximum wind loads (in Pa)

#### Vertical cassettes (Width ≤ 1180 mm)

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#### Horizontal cassettes (Length > 1180 mm)

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Fixing accessories for horizontal cassettes

- **Bottom fixing rail**
  Riveted to the top horizontal edge of the cassettes. Made using an extruded aluminium profile that is 2 mm thick.

- **Top fixing rail**
  Riveted to the bottom horizontal edge of the cassettes. Made using an extruded aluminium profile that is 2 mm thick.

- **First fixing rail**
  Screwed on to the vertical framework profiles. Made using an extruded aluminium profile that is 2 mm thick.

- **Anti-vibration spacer**
  Inserted into the upper rail of the lower cassette. The bottom fixing rail of the upper cassette covers this assembly during installation.

- **Self-drilling stainless steel screw**
  Used to fix the cassette (in line with the upper rail) to the vertical framework profiles. Diameter 4.8 mm - Length 24 mm.
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Cassette system
Installation on main building

Preparing the substructure

Installation of the framework is prepared using marking (laser or tracing line) and must correspond to the architect’s layout. Design and installation of the ductile aluminium framework will be determined in compliance with best practices.

The framework is made up of vertical aluminium profiles fixed to the substructure (brickwork or concrete) using brackets or fixing brackets (not supplied) enabling the profiles to expand freely.

Spacing of the fixing brackets on the supporting profiles (vertical) is defined with maximum deflection in compliance with local regulations (commonly used value: 1/200th of span). The depth of the brackets or fixing brackets is determined by the thickness of the insulation. A space of 2 cm will be left between the insulation and the VMZ Composite cassettes to ensure ventilation.

The maximum centre distance between profiles is determined in the charts on page 14. It varies depending on the format of the cassettes and the exposure of the building to winds.
To facilitate on-site installation of cassettes, we recommend pre-positioning the sliders in the vertical rail of the framework structure. By doing this the top sliders will be pre-positioned on the specified hanging size by screwing the HC8-TL auto-incising screw (delivered with the slider) onto the aluminium profile. The bottom sliders are pre-positioned on the specified interlocking size of the cassette’s bottom notch.

The cassettes are installed on the vertical aluminium profiles by simply interlocking the notches on the centre-line of the sliders.
Select cassettes according to layout and peel film off sides before fixing.
Hang the cassette on the pre-adjusted rails and adjust plumb and horizontal joints.
After hanging cassettes, proceed to precisely adjust positioning by moving the top slider. The bottom slider is then positioned at the bottom of the notch.
The intermediary sliders are positioned at the top of the notches, leaving a maximum space of 3 mm.

Installation is stabilised by securing the rails to the aluminium profile by blocking the screw with an Allen key.
The joint between cassettes can vary from 10 to 20 mm.
Remove adhesive protection by progressively peeling back and avoiding spills, projections and scratches.
If a cassette is damaged it can be easily replaced. Simply loosen the screws in the cassette in question, remove it and insert the new cassette following the instructions above.
Cassette system
Installation on main building

The fixing rails are fixed to the cassettes with rivets in the workshop.

The cassettes are installed from bottom to top. The cassettes on the top row are installed after the top fixing rail is fixed to the vertical profile.

The first row of cassettes is installed using the start-up fixing rail.

An anti-vibration spacer can be added to the top fixing rail.

Installation of horizontal cassettes
VMZ Composite

Cassette system

Sections

**Vertical section**

1. VMZ Composite Vertical Cassette
2. Vertical aluminium secondary framework rail
3. Bracket or fixing bracket
4. Slider
5. Spacer to break thermal continuity
6. VMZ Composite roof parapet coping
7. Ventilated base trim in zinc
8. Perforated profile

**Horizontal section**
VMZ Composite

Cassette system
Vertical cassette flashing

Top flashing

Roof parapet

Bottom flashing

Base trim

Underside - wall junction

Wall - underside junction
VMZ Composite

Cassette system

Vertical cassette flashing

Window surround

Lintel

Support

1. VMZ Composite vertical cassette
2. Vertical aluminium secondary framework rail
3. Bracket or fixing bracket
4. Slider
5. Spacer for breaking thermal continuity
6. Corner
7. Support apron in zinc
VMZ Composite

Cassette system
Vertical cassette flashing

Window surround

Lintel

Support

1 VMZ Composite vertical cassette
2 Vertical aluminium secondary framework rail
3 Bracket or fixing bracket
4 Slider
5 Spacer for breaking thermal continuity
6 Support apron in zinc
VMZ Composite

Cassette system
Vertical cassette flashing

Corners

Protruding corner, small width

Protruding corner, large width

Recessed corner

Side trim on wall

1. VMZ Composite vertical cassette
2. Vertical aluminium secondary framework rail
3. Bracket or fixing bracket
4. Slider
5. Spacer for breaking thermal continuity
6. Compartmentation sheet
VMZ Composite

Cassette system

Sections

1. VMZ Composite vertical cassette
2. Vertical aluminium secondary framework rail
3. Bracket or fixing bracket
4. Spacer for breaking thermal continuity
5. Top fixing rail
6. Bottom fixing rail
7. Anti-vibration spacer
VMZ Composite

Cassette system
Horizontal cassette flashing

Top flashing

Roof parapet

Underside - wall junction

Bottom flashing

Base trim

Wall - underside junction
VMZ Composite

Cassette system
Horizontal cassette flashing

1. VMZ Composite horizontal cassette
2. Vertical aluminium secondary framework rail
3. Bracket or fixing bracket
4. Spacer for breaking thermal continuity
5. Top fixing rail
6. Bottom fixing rail
7. Anti-vibration spacer
8. Roof parapet coping in VMZ Composite
9. Support clip
10. Perforated VMZ Composite trim
11. Start-up rail
12. Ventilated base trim in zinc
13. Perforated profile
14. Compartmentation sheet

Corners

Protruding corner

Recessed corner

Side trim on wall
VMZ Composite

Cassette system
Horizontal cassette flashing
VMZ Composite

Cassette system
Horizontal cassette flashing

1. VMZ Composite horizontal cassette
2. Vertical aluminium secondary framework rail
3. Bracket or fixing bracket
4. Spacer for breaking thermal continuity
5. Top fixing rail
6. Bottom fixing rail
7. Anti-vibration spacer
8. Cladding on lintel
9. Corner
10. Support apron in zinc
11. Start-up rail
12. VMZ Composite jamb cassette
VMZ Composite

Recommendations
Transforming

The machinery necessary for cutting and transforming VMZ Composite is similar to that used for traditional composite panels. Machine adjustments are also very similar. A test must be carried out by the manufacturer in advance however to check that machinery is suitable for working with VMZ Composite.

Section

- **Sawing**
  Several types of saw may be used to cut VMZ Composite: vertical panel saw/ circular saw, jig saw. The blade must be suitable for cutting zinc.

- **Shearing**
  VMZ Composite can be cut with a guillotine cutter or a circular shearing machine. For guillotine cutting, the hold-down clamp will where possible have rubber protections to avoid scratching or marking the zinc.

- **Punching**
  VMZ Composite may be cut by punching. A space of 1/10 mm must be left between the punch and the mould to ensure a clean cut. Stamping press tools must be sharpened to ensure a clean cut. We recommend pre-testing for optimum adjustment.

- **Squaring**
  For flat installations, with visible screw or rivet fixing systems, squaring of the panels on 4 sides must be done by the transformer. Squaring should only be done with a saw (circular saw) or by milling and must respect a minimum trimmed width of 5 mm on each side of the panel at production exit.

- **Milling**
  VMZ Composite may be milled using standard milling equipment (universal, vertical or horizontal milling machine). We recommend using separators on blocking devices to avoid leaving a mark on the VMZ Composite.

  CNC machines can be used for cutting, milling and piercing VMZ Composite. They are used for large scale production and high precision machining.
VMZ Composite

Recommendations

Transforming

Curving
VMZ Composite can be curved to make a multitude of complex shapes: roof parapets, rolls, column cladding, conical shapes....

Without removing the protective film, VMZ Composite zinc can be curved using a traditional rolling machine with three polished cylinder symmetrical rollers, a bending press or a manual bender. We recommend pre-testing, especially on machines previously used to curve other metals. To avoid damaging the surface of the zinc, we also recommend separating using 1 or 2 mm thick strips of polyethylene or PVC to guard against marks. We also recommend heating the workshop.

The minimum curve radius excluding back coating trim is 250 mm.

The milling-bending technique
Using a CNC flat or disc cutter, VMZ Composite can be cut into many different shapes. The milling-bending technique consists of making straight or V shaped grooves on the back of the composite panel. The front of the panel and part of the mineral core are conserved. Bend radii between 2 mm and 10 mm are obtained depending on type of milling and shape of groove. For V-shaped grooves, the minimum bend radius is 2 mm and the corner is 90° or 135°. A straight groove with a concave bottom creates a bend radius between 7 mm and 10 mm.

The milling-bending technique makes it possible to manually bend the panels without using a bending machine. A U or H shaped bending ruler must be used.
VMZ Composite

Recommendations

Maintenance

Zinc requires little or no maintenance. A natural self-protective coating forms on its surface and gives it an incredibly long lifespan. Nevertheless, certain measures should be taken to store and handle VMZ Composite panels.

Precautions for PIGMENTO® use

- Do not scratch PIGMENTO® with a sharp object. This would create a mark likely to cause more widespread deterioration.
- Protect tool jaws to avoid damaging the surface of PIGMENTO®.
- Check that the environment in which the product is to be used (corrosivity) is suitable for area of use of Composite and state of zinc surface. It is especially important, with PIGMENTO® in VMZ Composite, to comply with the following rules:
  - Direct exposure to salt spray (distance from sea < 1 km): PIGMENTO® in VMZ Composite must only be used in cassettes, with exposed cut edges protected by a suitable protective varnish (e.g. Beckrypair 6000 by Becker Industrie).
  - Use in coastal areas (distance from sea < 20 km) or in other specific conditions where there is a corrosive environment: exposed cut edges not rinsed by the rain should be treated with a suitable protective varnish (e.g. Beckrypair 6000 by Becker Industrie).

Handling

- Try not to let VMZ Composite panels fall. The impact could deform the panels, deteriorate the appearance of the zinc and damage the structural integrity of the panel.

Storage

- VMZ Composite must be stored in a dry, covered, ventilated area. Variations in temperature must be avoided in order to prevent condensation accumulating.
- It is preferable to store VMZ Composite flat in order to reduce risks of deformation.
- It must be separated from the floor by ventilated chocking. If transported by sea, containers must be immediately ventilated after reception. The products must be stored as quickly as possible in the conditions described above.

Installation

- The protective film must be removed immediately after installation of the VMZ Composite panels. If this is not possible, it is recommended that the film be removed after a maximum of 90 days. Never partially remove film from a panel. Once the protective film is removed, care must be taken to protect the VMZ Composite from stains and spills.

Mastic joint

- It is possible to use mastic joint, e.g. for making penetrations watertight. It is important, however, to use neutral products that are compatible with zinc. These products must be capable of enduring high temperatures (80°C for QUARTZ-ZINC® and 90°C for ANTHRA-ZINC®) during long periods.

Example of products recommended by VMZINC:
- Dow 795 metal, glass metal
- SikaFlex 1a metal, brickwork metal
- SikaFlex 2c metal, brickwork metal
- SikaFlex201 metal, brickwork metal
Cleaning
The installer must wear gloves to minimize marks. Dust and dirt from the site can be cleaned from non-protected zinc with a soft cloth and hot water. For graffiti, contact the VMZINC team.
The use of chemical products can alter the finish of the zinc. When cleaning windows for example, use neutral cleaning products. If the VMZ Composite panel is scratched, the continuous formation of a patina on the zinc will minimize the scratch over time.

Management of aspects
Zinc is a natural living material. It is therefore normal in the initial period of exposure, to observe slight variations in aspect. However, the latter will diminish thanks to the self-protective layer that forms on the zinc over time, enabling its colour to become evenly harmonised.
We recommend using products from the same manufacturer to ensure evenness of aspect at the end of installation.

Coastal areas
Zinc is a material that is reputed for its resistance in coastal areas. In marine atmospheres, the salt contained in the air and the water reacts with the zinc to create zinc oxychloride, which is slightly white in colour. These white deposits are washed away by rain water.
In exposed areas (seawater spray), salt deposits can develop on undersides and other protected areas such as gutter strips, gutter undersides, etc. Although salt deposits are not noxious for zinc, they damage its appearance. Umicore cannot be held responsible for the appearance of these salt deposits on zinc surfaces.
For further information, please contact the VMZINC team.

Zinc and other metallic products
In general, water should never trickle from a high potential metal to a lower potential metal. Water becomes charged with ions that can attack the weaker metal. Different facade cladding metals should be installed as follows, from top to bottom:
Zinc and aluminium
Galvanised steel
Copper
Lead.